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EXAMINER

CALDWELL, ANDREW T

ART UNIT	PAPER NUMBER
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2151

DATE MAILED: 12/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/326,163

Applicant(s)

WU, CHARLES

Examiner

Andrew Caldwell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 18 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) 34-38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

***Remarks***

Claims 1-38 are pending. Claims 34-38 are withdrawn from further consideration since they are directed to a non-elected invention.

***Election/Restrictions***

Newly submitted claims 34-38 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons. The claims are grouped as follows:

- I. Claims 1-33, drawn to a method for synchronizing objects on temporarily inaccessible storage volumes, classified in class 709, subclass 221.
- II. Claims 34-38, drawn to a method for using a list to update objects synchronizing objects, classified in class 709, subclass 221.

Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. See MPEP § 806.05(d). In the instant case, invention II has separate utility as discussed by the applicants on page 23 line 2 to page 24 line 5 of the application. The invention of group II uses a list of objects to determine which objects to update. As noted in the cited portion of the specification, the invention of group II could be used in systems where a storage volume does not become inaccessible, but where only a portion of the objects on a storage device become unavailable. So the invention of Group II could be used in a system with an unremovable storage volume. In contrast, the invention of Group I clearly requires the

storage volumes, and not just the objects, to become inaccessible. The invention of Group II therefore has separate utility.

Examination of the invention of Group II would require searching class 707 subclass 9 – Database or File Accessing – Concurrency, while examination of the invention of Group I would not.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Since applicant has received an action on the merits for the originally presented invention, the invention of Group I has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 34-38 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claim 1, the preamble requires the second device to *occasionally* delete objects stored in the storage volumes of the second device when the first device cannot

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access the storage volume. However, when the body of the method is practiced, the second device will not occasionally delete objects because it will never attempt to synchronize them if the method steps are practiced. The language is therefore contradictory because a device that practices the method of the body will not *occasionally delete* objects stored in one or more of the plurality of storage volumes during synchronization. Since claims 2-12 depend on claim 1 and therefore contain the same language, they are rejected for the same reasons. For purposes of prior art rejections in this Office action, the Examiner will construe the language of the preamble as merely a description of prior art systems.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hawkins, U.S. Patent No. 5,884,323, in view of Harari et al., U.S. Patent No. 5,887,145, and further in view of Porcaro, U.S. Patent No. 5,774,717.

Regarding claim 1, the preamble will be given patentable weight since the claim body refers back to the preamble. See the first device at lines 4 and 6. Hawkins teaches the invention substantially as claimed by disclosing:

A first device (Fig. 1 elem. 110 handheld) and a second device (Fig. 1 elem. 150 PC);

Practicing a method comprising:

Identifying one or more storage volumes of the plurality of storage volumes associated with the first device (col. 9 line 58 to col. 10 line 8 memory card number as parameter to API function call opening database on the handheld; col. 7 lines 24-29);

Synchronizing objects contained in the one or more identified storage volumes (col. 4 lines 37-42).

Hawkins does not explicitly teach a first device that is capable of communicating with a storage volume that can become inaccessible to the first device and a method wherein the step of identifying one or more storage volumes identifies the one or more storage volumes as *currently accessible* to the first device and the step of synchronizing objects comprises synchronizing *only* objects contained in the one or more identified storage volumes. Hawkins does however teach that the PC uses an API call that requires a memory card number as a parameter when opening a particular database on the handheld computer/first device (col. 9 line 58 to col. 10 line 8).

Harari on the other hand teaches a handheld computer including a removable memory card (Figs. 1 and 3). Harrari therefore teaches a storage volume/memory card

that can become inaccessible to the first device/handheld since a memory card is inaccessible when it is removed.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Harari's removable memory card with the handheld of Hawkins because of Hawkins' suggestion that the handheld includes memory cards (col. 9 line 58 to col. 10 line 8).

The combination of Hawkins in view of Harari does not explicitly teach a method wherein the step of identifying storage volumes identifies storage volumes currently accessible to the first device. However, this feature is implicit in the teachings of the combination of Hawkins in view of Harari based on logical reasoning. Hawkins teaches that the PC's API includes a remote procedure call for opening a database on the handheld (col. 7 lines 24-29). Hawkins also teaches that this API function call may return successfully (col. 9 line 65 to col. 10 line 8), which implies that the function call may also return unsuccessfully. If the database cannot be opened, the memory card must be inaccessible. If the database can be opened, the memory card must be accessible. The combination of Hawkins in view of Harari therefore identifies storage volumes currently accessible to the current device when opening the databases.

The combination of Hawkins in view of Harari does not explicitly teach a method wherein the step of synchronizing objects comprises synchronizing *only* objects contained in the one or more identified storage volumes.

Porcaro on the other hand teaches a method for resynchronizing files where the user is informed of synchronization conflicts and the user selects one or more conflict

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resolution options (claim 1). The conflict resolution options include a proceed option that allows the synchronization to proceed (col. 9 lines 18-21). The conflict resolution options also include an ignore option that prevents the synchronization from proceeding (col. 9 lines 22-24).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Porcaro's teaching regarding user resolution of synchronization conflicts with the method of the combination of Hawkins in view of Harari by asking the user how to proceed in the event that the API function call for opening a database on the handheld fails. This combination would have been obvious because allowing the user to resolve conflicts makes the system's actions more closely reflect the user's desires. In the resulting combination, the user would be asked before a database on the host would be deleted because it was no longer accessible on the handheld. When the user chooses not to synchronize the database (i.e., ignore the conflict), the system of the combination would only synchronize objects contained in the storage volumes currently identified as accessible.

Regarding claim 2, the combination of Hawkins in view of Harari and further in view of Porcaro teaches a method further including identifying one or more of the plurality of storage volumes previously accessible to the first device but not currently accessible to the first device wherein the identifying further comprises identifying one or more of the plurality of storage volumes as previously accessible to the first device but no longer currently accessible to the first device and while synchronizing, ignoring objects stored on the one or more of the plurality of storage volumes identified as



previously accessible to the first device but not currently accessible to the first device (col. 9 line 58 to col. 10 line 8 unsuccessful return of SyncOpenDB).

Regarding claim 3, the combination of Hawkins in view of Harari and further in view of Porcaro teaches the additional limitations of claim 3. As to the first limitation, it is broader in scope than the one addressed above in claim 2 and is therefore rejected for the same reasons. As to the step of while synchronizing, ignoring objects stored on the one or more identified storage volumes not currently accessible to the first device, a person of ordinary skill in the art at the time the invention was made would reasonably infer that the combination of Hawkins in view of Harari implicitly teaches this limitation. If the SyncOpenDB function call does not return successfully, the system cannot synchronize that particular database. If the database cannot be synchronized, the system must skip or ignore the database in the current round of synchronization.

Regarding claim 4, Hawkins teaches a method wherein each object comprises a plurality of data items (col. 4 lines 2-9). Hawkins also teaches a method wherein the synchronizing step further comprises synchronizing data items in one object with corresponding data items in another object (col. 4 lines 2-9 synchronizing database in handheld with database in PC).

Regarding claim 5, Hawkins teaches a method wherein the objects are databases (col. 4 lines 2-9).

Regarding claim 6, the combination of Hawkins in view of Harari teaches a method wherein the first device identifies storage volumes currently accessible to the first device (col. 9 line 58 to col. 10 line 8 successful return of SyncOpenDB).

Regarding claim 7, Harari teaches a method wherein the storage volume is a removable memory card configured to be inserted into the first device (Figs. 1 and 3).

Regarding claim 8, Hawkins teaches a method wherein the first device is a portable computing device (Fig. 1 elem. 110 handheld).

Regarding claim 9, Hawkins teaches a method wherein the second device is a desktop computer (Fig. 1 elem. 150 PC).

Regarding claim 10, the combination of Hawkins in view of Harari and further in view of Porcaro implicitly teaches this limitation. Hawkins teaches that the personal computer holds databases that are synchronized with those on the handheld (col. 4 lines 37-42). Even if the Hawkins synchronization program cannot successfully open the database on the handheld, a person of ordinary skill in the art would reasonably infer that the database on the PC can be changed regardless of whether the handheld can access the database on the PC since this is to be the point of the whole synchronization process. The PC therefore continues to monitor and record changes to items in the PC databases, which have corresponding entries in the databases on the handheld. The combination of Hawkins in view of Harari therefore teaches a method further comprising the second device continuing to monitor and record changes to objects stored on storage volumes that are inaccessible to the first device.

Regarding claim 11, Hawkins teaches this limitation. When the handheld is not in communication with the PC, the databases/storage volumes on the PC are inaccessible. When the handheld is able to communicate with the PC, the databases

on the PC become accessible, and the items within the corresponding databases are synchronized.

As to claim 12, it is a computer readable media claim corresponding to method claim 1. Since it does not teach or define above the information in the corresponding method claim, it is rejected under the same basis.

Regarding claim 13, the reasons for rejection are evident from the reasons given above with respect to claim 1.

Regarding claim 14, Hawkins teaches a method wherein the object comprises a plurality of items and the corresponding object on the base computer comprises a plurality of corresponding items (col. 4 lines 2-9 and 27-42).

Regarding claim 15, Hawkins teaches a method wherein the object comprises a plurality of items and the corresponding object on the base computer comprises a plurality of corresponding items (col. 4 lines 2-9 and 37-42), and wherein the synchronizing the object further comprises synchronizing data items in the object with the corresponding data items in the corresponding object on the base computer (col. 4 lines 2-9 and 37-42).

Regarding claim 16, Hawkins teaches a system wherein the portable computer determines whether the removable storage device is inserted into the personal computer (col. 9 line 58 to col. 10 line 8 SyncOpenDB as remote procedure call from PC to handheld).

Regarding claim 17, the combination of Hawkins in view of Harari and further in view of Porcaro implicitly teaches this limitation. Hawkins teaches that the personal

computer holds databases that are synchronized with those on the handheld (col. 4 lines 37-42). Even if the Hawkins synchronization program cannot successfully open the database on the handheld, a person of ordinary skill in the art would reasonably infer that the database on the PC can be changed regardless of whether the handheld can access the database on the PC since this is to be the point of the whole synchronization process. The PC therefore continues to monitor and record changes to items in the PC databases even when the SyncOpenDB function unsuccessfully returns (col. 9 line 58 to col. 10 line 8).

As to claim 18, it is a computer readable media claim corresponding to method claim 13. Since it does not teach or define above the information in the corresponding method claim, it is rejected under the same basis.

Regarding claim 19, it is a method claim similar in scope to claim 1 except for the following additional limitations: (a) each storage volume contains at least one object and wherein each object contains a plurality of data items; and (b) synchronizing *only* objects in currently accessible storage volumes. As to point (a), Hawkins teaches a system that synchronizes databases (col. 4 lines 2-9 and 27-42). The database is an object, and databases contain multiple items. As to point (b), Hawkins teaches that the SyncOpenDB function returns successfully if the database on the handheld can be opened. If the database cannot be opened, this function would not successfully return. The PC software would recognize this condition and not attempt to synchronize a database that cannot be opened.

Regarding claims 20-23, they introduce additional limitations identical to those of claims 2-3, 7, and 10 discussed above. Since the remarks given above with respect to claims 1-3, 7, and 10 apply equally here, they will not be repeated.

As to claim 24-28, they are computer readable media claims corresponding to method claim 19-23, respectively. Since they do not teach or define above the information in the corresponding method claims, they are rejected under the same basis.

As to claim 29-32, they are apparatus claims corresponding to media claims 25 and 27-28, respectively. Since they do not teach or define above the information in the corresponding method claims, they are rejected under the same basis.

As to claim 31, Hawkins teaches a system wherein the apparatus is a desktop computer (Fig. 1 elem. 150).

As to claim 33, the remarks given above with respect to claim 11 apply equally to claim 33 and will not be repeated.

Claims 13-15 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kucala, U.S. Patent No. 6,243,705, in view of the Admitted Prior Art.

Regarding claim 13, Kucala teaches the invention substantially as claimed by disclosing a method comprising:

Creating an association between an object on a storage device of a portable computer and a corresponding object on a base computer (col. 2 lines 4-9);

Synchronizing the object stored on the storage device of the portable computer with the corresponding object on the base computer (col 2 lines 10-27 showing synchronization that occurs when object is on both the handheld and the desktop);

Preventing the corresponding object on the base computer from being deleted if the corresponding object is not on the storage device of the portable computer (col. 3 lines 24-32 showing that the desktop file is not deleted when the corresponding file is not on the handheld).

Kucala does not explicitly teach a method wherein the portable computer has a removable storage device and the method further comprises:

Storing an object on a removable storage device, wherein the removable storage device is configured to be inserted into and removed from the portable computer;

Synchronizing the object stored *on the removable storage device* with the corresponding object on the base computer if the removable storage device is inserted into the portable computer;

Preventing the corresponding object on the base computer from being deleted *if the removable storage device is not inserted into the portable computer*.

The APA on the other hand teaches a portable computer having a removable storage device and storing an object on a removable storage device, wherein the removable storage device is configured to be inserted into and removed from the portable computer (p. 3 lines 8-23).

It would have been obvious to one of ordinary skill in the art to combine the APA's teachings regarding the use of removable storage devices in handhelds with the

handheld of Kucala because the use of memory cards allow a user to increase the memory resources of a portable computer. When a memory card is inserted into the system of the combination of Kucala in view of the APA, the system will synchronize the objects stored on the removable storage device with the corresponding object on the base computer if the removable storage device is inserted into the portable computer per the process described at col. 2 lines 10-27). When the memory card is removed from the system of the combination of Kucala in view of the APA, corresponding objects on the base computer from being will be prevented from being deleted when the removable storage device is not inserted into the portable computer since the system would operate as described at col. 3 lines 24-32. Although the combination may result in the creation of a corresponding database on a different memory card that is currently inserted into the portable computer, it will not result in the deletion of the corresponding object from the base computer.

Regarding claim 14, Kucala teaches a method wherein the object comprises a plurality of items and the corresponding object on the base computer comprises a plurality of corresponding items (col. 4 lines 3-5 calendar files containing plurality of records).

Regarding claim 15, Kucala teaches a method wherein the object comprises a plurality of items and the corresponding object on the base computer comprises a plurality of corresponding items (col. 4 lines 3-5), and wherein the synchronizing the object further comprises synchronizing data items in the object with the corresponding data items in the corresponding object on the base computer (col. 4 lines 3-21).

Regarding claim 17, the combination of Kucala in view of the APA teaches a base computer that continues to monitor and record changes to items in the base computer databases even when removable storage device is not inserted into the portable computer (col. 3 lines 24-32).

As to claim 18, it is a computer readable media claim corresponding to method claim 13. Since it does not teach or define above the information in the corresponding method claim, it is rejected under the same basis.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-33 in the responses filed on March 6, 2003 (paper no. 8) and June 18, 2003 (paper no. 10) are moot in view of the new grounds of rejection. However, in the interest of advancing the prosecution, the Examiner will address certain arguments.

At the bottom of page 15 and the top of page 16 of the response filed on March 6, 2003 (paper no. 8), the Applicants argue that the Examiner's interpretation of the Hawkins reference is not consistent with embodiments of the HotSync architecture described at the URL specified in the response. First, it is noted that the Applicant failed to provide a copy of the reference discussed in the response. Accordingly, there is no evidence in the record indicating whether the Applicant's arguments concerning the reference are true. Arguments unsupported by any evidence in the record are not persuasive. In addition, the Applicant has provided no evidence that the reference



describes the version of the HotSync architecture at the time of or prior to the Applicant's filing date.

At the bottom of page 16 and the top of page 17 of the response filed on March 6, 2003 (paper no. 8), the Applicant argues that his method requires only a desktop synchronization manager in the second device and a portable synchronization manager in the first device and is implemented without a need for the sync manager library and conduit libraries of Hawkins. It is noted that all of these features do not appear in all of the independent claims.

At the bottom of page 17 and the top of page 18 of the response filed on March 6, 2003 (paper no. 8), the Applicant argues that a person of ordinary skill in the art would have made the inferences in line with the *typical* practice in the art as discussed on page 3 lines 8-23 of the specification. The Examiner has provided evidence in the form of Porcaro that it is known within the art to ask the user to resolve synchronization conflicts.

### ***Conclusion***

A shortened statutory period for response to this action is set to expire **three months** from the mail date of this letter. Failure to respond within the period for response will result in **ABANDONMENT** of the application (see 35 U.S.C. 133, M.P.E.P. 710.02, 710.02(b)).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Caldwell, whose telephone number is (703) 306-3036. The examiner can normally be reached on M-F from 9:00 a.m. to 5:30 p.m. EST.

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If attempts to reach the examiner by phone fail, the examiner's supervisor, Glenton Burgess, can be reached at (703) 305-4792. Additionally, the fax numbers for Group 2100 are as follows:

Fax Responses: (703) 872-9306

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist at (703) 305-9600.

A handwritten signature in black ink that reads "Andrew Caldwell". The signature is written in a cursive, flowing style.

Andrew Caldwell  
703-306-3036  
December 23, 2003